

中文核心期刊

全文入编《中国学术期刊(光盘版)》
CNKI 中国期刊全文数据库全文收录期刊
中国学术期刊综合评价数据库来源期刊
《中国核心期刊(遴选)数据库收录》

特邀顾问:张荫蓬
主编:李金鹏
副主编:牛凯丰 杜雅君

编辑、出版、发行:《轻金属》编辑部
印刷:沈阳中科印刷有限责任公司
发行范围:国内外发
国内统一连续出版物号:CN 21 - 1217/TG
国际标准连续出版物号:ISSN 1002 - 1752
广告经营:2101001500028
许可证号:
定 价:每册 15.00 元

《轻金属》编辑部
地址:沈阳市和平区和平北大街 184 号
邮编:110001
电话、传真:(024)23261062
E-mail:lightmetal@sami.com.cn
网址:www.sami.com.cn

收款单位:沈阳铝镁设计研究院有限公司
开户银行:广东发展银行沈阳中华路支行
银行帐号:1390 4151 6010 0073 14

《轻金属》加工分编辑部
地址:哈尔滨市平房区新疆三道街 11 号
邮编:150060
电话:(0451)86564352
网址:http://www.zglm.org
E-mail:qhjian@yahoo.com.cn

目 次

· 综述 ·

高性能铝合金厚板的生产技术及应用 阮鹏跃(3)

企业固体废弃物绿色回收构建研究 杨小宏(9)

· 轻金属原料矿山 ·

高硫铝土矿脱硫方法研究 王宝奎,郑桂兵,曾克文(12)

· 氧化铝氟化盐 ·

回收废液制取冰晶石 刘晓红,章小明,程淑莲,陈剑军(15)

基于 GA 的工程整定模糊 PID 烧结温度控制器 蒋勇,陈华(19)

碳分母液二次碳分产物的应用途径 张之强,杨会宾,李韶辉,李永玲(23)

酸浸粉煤灰提取铝铁工艺研究 任根宽(27)

磷酸制种生产超细氢氧化铝的新工艺研究 李民菁,史智慧,吴利彬,孙克晗,翟福霞(31)

低铝硅比时代的中国氧化铝工艺选择 张佰永,王鹏(36)

· 铝冶炼 ·

铝电解的能量消耗及改善措施的研究 刘方波,耿玉伟(40)

新型阴极结构高效节能电解槽技术的应用与推广 贺建忠,崔贵生,亢长青,马康康(44)

铝电解换极添加料块模具的设计与应用 田元欢(47)

11 吨真空出铝抬包综合改造 梁晓光,柴永辉(49)

200kA 新型阴极结构铝电解槽能量平衡测定及生产控制 肖以华(51)

· 铝用炭素 ·

阳极生产脱硫行为对产品质量影响浅析 王敏,崔银河(55)

· 镁钛工业硅 ·

镁电解槽场研究进展 孙泽,党国元,范惠萍,贡胜军,罗木宁,赵昀,宋兴福,路贵民(58)

基于提升小波变换的镁熔液弱目标检测方法 许四祥,马爱萍,汪敏(62)

硫酸镍体系化学镀工艺参数对镁合金化学镀镍层的影响 朵军,王晓民(65)

联合法海绵钛生产中氯化镁吸潮及其脱气工艺的探讨 左春生,普学伟(69)

· 轻合金及其加工 ·

3104 铝合金热变形的试验研究 李兴成,卢雅琳(72)

· 轻金属材料 ·

制备双金属复合材料的半固态成型法的研究 栗争光,胡雪,黎天保,董建雄,李斌,杨昭(76)

· 行业资讯 ·

BorAluPlast 胶泥 (8)

中国电解铝能耗逐年下降 (18)

海城或将成为全球最大镁基地 (26)

青鑫公司开始批量生产世界最大阴极炭块 (57)

2018 年海湾和北非将成为全球最大原铝基地 (68)

中铝预计:2011 年中国氧化铝产量 3320 万吨,原铝产量 1900 万吨 (75)

书讯 (11,22,68)

期刊基本参数:CN21 - 1217/TG * 1964 * m * 17 * 64 * zh * P * ¥ 15.00 * * 21 * 2011 - 07

LIGHT METALS (Monthly)

Sponsored by Shenyang Aluminium and Magnesium
Engineering and Research Institute Company Limited
No7 (Serial No 393) 2011

MAIN CONTENTS

Production technology of high performance aluminium alloy plate and its application	RUAN Peng - yue(3)
Study of the green recovery of solid waste from enterprises	YANG Xiao - hong(9)
Study of eliminating sulfur from high sulfur bauxite	WANG Bao - kui, ZHENG Gui - bing and ZENG Ke - wen(12)
Preparation of cryolite from the exhaust liquor	LIU Xiao - hong, ZHANG Xiao - ming, CHENG Shu - lian and CHEN Jian - jun(15)
A fuzzy PID controller based on engineering adjustment with the optimization of genetic algorithm applied to kiln	JIANG Yong and CHEN Hua(19)
Study on application of recovered materials from pregnant liquor of carbon decomposition	ZHANG Zhi - qiang, YANG Hui - bin, LI Shao - hui and LI Yong - ling(23)
Technology process of extraction of aluminium and iron from fly ash by acid leaching	REN Gen - kuan(27)
A research about the production of ultra - fine aluminum hydroxide with the active seed crystal by phosphorylation	LI Min - jing, SHI Zhi - hui, WU Li - bin, SUN Ke - han and ZHAI Fu - xia(31)
Selection for Chinese alumina process in the times of low A/S ratio	ZHANG Bai - yong and WANG Peng(36)
The research of energy consumption and improvement measures for aluminium reduction	LIU Fang - bo and GENG Yu - wei(40)
Application of energy saving technology industrialization of new cathode structure pots	HE Jian - zhong, CUI Gui - sheng, KANG Chang - qing and MA Kang - kang(44)
Design and application of additive material mould while anode replacing in aluminium electrolysis	TIANG Yuan - huan(47)
The comprehensive reform of 11t vacuum crucible	LIANG Xiao - guang and CHAI Yong - hui(49)
Energy balance measurement and production control for 200kA new cathode structure pots	XIAO Yi -hua(51)
Influence of desulfurization on prebaked anode quality	WANG Min and CUI Yin - he(55)
Review about research on flow field in magnesium electrolysis cell	SUN Ze, DANG Guo - yuan, FAN Hui - ping, GONG Sheng - jun, LUO Mu - ning, ZHAO Yun, SONG Xing - fu and LU Gui - min(58)
Weak target detection method based on lifting wavelet in magnesium melt	XU Si - xiang, MA Ai - ping and WANG Min(62)
The influence of NiSO ₄ chemical electroplating parameters on the nickel plate coating of magnesium alloy	DUO Jun and WANG Xiao - min(65)
Discussion on magnesium chloride to absorb moisture and degassing process in titanium sponge production	ZUO Chun - sheng and PU Xue - wei(69)
Experimental research of 3104 aluminium alloy at elevated temperature	LI Xing - cheng and LU Ya - lin(72)
A study of manufacturing bi - material composite parts though semisolid metal processing	LI Zheng - guang, HU Xue, LI Tian - bao, DONG Jian - xiong, LI Bin and YANG Zhao(76)

Chief Editor: Li Jinpeng Deputy Chief Editor: Niu Kaifeng, Du Yajun

Edited by "LIGHT METALS" Editorial Board (184 Hepingbei Street, Shenyang, Liaoning 110001, P. R. CHINA)

Published by "LIGHT METALS" Editing & Publishing Committee

Printed by the Printing House of Shenyang Branch Chinese Academy of Sciences

Distributed by "LIGHT METALS" Editorial Board